Amendment to the Claims:

The listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Original) In a system having a transmitter transmitting a plurality of packets each containing a header to a receiver, a method of synchronizing the transmission of compressed headers between the transmitter and receiver comprising:

transmitting a current packet from the transmitter to the receiver containing information that the transmitter is prepared to send subsequently transmitted packets in which the headers therein are to be compressed in comparison to the header contained in the current packet; and

transmitting from the receiver to the transmitter an acknowledgment packet that the receiver has received the current packet.

2. (Original) A method in accordance with claim 1 wherein:

the transmitter stores the header of the current packet which has been acknowledged as being received by the receiver as a reference header which is used in the transmission of the subsequently transmitted packets as a reference header to be used by the receiver to decompress the subsequent headers;

the receiver stores the header of the current packet, which is acknowledged, for decompressing the compressed headers of the subsequently transmitted packets;

the transmitter transmits the subsequent packets using the stored header of the current packet as a reference header; and

the receiver uses the stored referenced header to decompress the compressed headers of the subsequently transmitted received packets to produce a full header which is not compressed.

3-4. Cancelled without disclaimer or prejudice.

5. (Original) A method in accordance with claim 1 wherein:

the header of the current packet is a first order compressed header; and

the compressed header of the subsequently transmitted packets is a second order compressed header.

6. (Original) A method in accordance with claim 2 wherein:

the header of the current packet is a first order compressed header; and

the compressed header of the subsequently transmitted packets is a second order compressed header.

7. (Original) A method in accordance with claim 1 wherein:

the header of the current packet is a full header; and

the compressed header of the subsequently transmitted packets is a second order compressed header.

8. (Original) A method in accordance with claim 2 wherein:

the header of the current packet is a full header; and

the compressed header of the subsequently transmitted packets is a second order compressed header.

9. (Previously Amended) A system comprising:

a transmitter which transmits a plurality of packets each containing a header;

a receiver which receives the transmitted plurality of packets; and wherein

the transmitter transmits a current packet to the receiver containing information that the transmitter is prepared to send subsequently transmitted packets in which the headers therein are to be compressed in comparison to the current packet and the receiver transmits an acknowledgment packet that the receiver has received the current packet; and wherein

the header of the current packet is one of a full header or a first order compressed header; and

the compressed header of the subsequently transmitted packets is a second order compressed header.

10. (Original) A system in accordance with claim 9 wherein:

the transmitter stores the header of the current packet, which has been acknowledged as being received by the receiver, as a reference header that is used in the transmission of the subsequently transmitted packets as a reference header to be used by the receiver to decompress the subsequent headers;

the receiver stores the header of the current packet which is acknowledged as a reference header for decompressing the compressed headers of the subsequently transmitted packets;

the transmitter transmits the subsequent packets using the stored header of the current packet as a reference header; and

the receiver uses the stored reference header to decompress the compressed headers of the subsequently transmitted received packets to produce a full header which is not compressed.

11-12. Cancelled without disclaimer or prejudice.

13. (Original) A system in accordance with claim 9 wherein:

the header of the current packet is a first order compressed header; and

the compressed header of the subsequently transmitted packets is a second order compressed header.

14. (Original) A system in accordance with claim 10 wherein:

the header of the current packet is a first order compressed header; and

the compressed header of the subsequently transmitted packets is a second order compressed header.

15. (Original) A system in accordance with claim 9 wherein:

the header of the current packet is a full header; and

the compressed header of the subsequently transmitted packets is a second order compressed header.

16. (Original) A system in accordance with claim 10 wherein:

the header of the current packet is a full header; and

the compressed header of the subsequently transmitted packets is a second order compressed header.

17 -24. Cancelled (without disclaimer or prejudice at the Examiner's request to cancel non-elected claims).

25. (Original) In a system having a transmitter transmitting a plurality of packets each containing a header to a receiver, a method of synchronizing transmission of first order compressed headers between the transmitter and receiver comprising:

transmitting a current packet to the receiver containing a first order compression header with a number of the current packet in the plurality of packets being coded by an extended sequence number having I bits;

in response to reception of the current packet containing the first order header, transmitting from the receiver to the transmitter an acknowledgment packet that the receiver has received the current packet containing the first order compressed header; and

in response to reception of the acknowledgment packet, the transmitter transmits subsequent packets each containing a sequence number having non-extended sequence number having K bits with I>k.

26. (Original) A method in accordance with claim 25 wherein:

the transmitter stores the header of the current packet, which has been acknowledged as being received by the receiver, as a reference header that is used in the transmission of the subsequently transmitted packets containing a first order compressed header as a reference header to be used by the receiver to decompress the subsequent headers;

the receiver stores the header of the current packet, which is acknowledged as a reference header, for decompressing the compressed headers of the subsequently transmitted packets containing a first order compressed header;

the transmitter transmits subsequent packets containing the first order compressed header using the stored header of the current packet as a reference header; and

the receiver decompresses the compressed headers of the subsequently transmitted received packets containing the first order compressed header with the stored reference header to produce a full header which is not compressed.

27. (Original) A method in accordance with claim 25 wherein:

the receiver detects at least one lost packet in the subsequently transmitted packets by comparison of the sequence numbers of successively received transmitted packets.

28. (Original) A method in accordance with claim 26 wherein:

the receiver detects at least one lost packet in the subsequently transmitted packets by comparison of the sequence numbers of successively received transmitted packets.

29. (Original) A method in accordance with claim 26 wherein:

a number of missing packets is determined between an immediately previously received packet and the current packet;

the number of determined missing packets is added to a packet number of the immediately previously received packet to a number of the current packet to update a number of the current packet in a sequence of transmission of the plurality of packets; and

decompressing a sequence number of the current packet using the updated number and decompressing additional fields of information using the stored reference header.

30. (Original) A method in accordance with claim 28 wherein:

a number of missing packets is determined between an immediately previously received packet and the current packet;

the number of determined missing packets is added to a packet number of the immediately previously received packet to a number of the current packet to update a number of the current packet in a sequence of transmission of the plurality of packets; and

decompressing a sequence number of the current packet using the updated number and decompressing additional fields of information using the stored reference header.

31. (Original) In a system having a transmitter transmitting a plurality of packets each containing a header to a receiver, a method of synchronizing transmission of first order compressed headers between the transmitter and receiver comprising:

transmitting a plurality of packets to the receiver each containing a first order compressed header with a number of each of the plurality of packets in an order of transmission being defined by a sequence number having I extended bits; and

detecting at least one lost packet in the transmitted plurality of packets between a current packet and a last packet when a difference DIFF equals DIFF (CD_SN_CURR, CD_SN_LAST) wherein CD_SN_LAST is an absolute packet

number of a last received packet and CD_SN_CURR is an absolute packet number of the current packet.

32. (Original) A method in accordance with claim 31 wherein:

a number of lost packets N_{loss} is calculated to be equal to DIFF EXT(CD_SN_CURR, CD_SN_LAST) is equal to (CD_SN_CURR)-(CD_SN_LAST).

33. (Original) A system comprising:

a transmitter which transmits a plurality of packets each containing a header; and

a receiver which receives the plurality of packets each containing a header; and wherein

a current packet is transmitted by the transmitter to the receiver containing a first order compression header with a number of the plurality of packets being coded by a multiple bit sequence number, in response to reception of the current packet containing the first order header the receiver transmits to the transmitter an acknowledgment packet that the receiver has received the current packet containing the first order compressed header and the transmitter in response to reception of the acknowledgment packet transmits subsequent packets each containing a sequence number in the plurality of packets having a reduced number of bits compared to a number of bits in the sequence number of the current packet.

34. (Original) A system in accordance with claim 33 wherein:

the transmitter stores the header of the current packet, which has been acknowledged as being received by the receiver, as a reference header that is used in the transmission of the subsequently transmitted packets containing a first order compressed header as a reference header to be used by the receiver to decompress the subsequent headers;

the receiver stores the header of the current packet, which is acknowledged as a reference header, for decompressing the compressed headers of the subsequently transmitted packets containing a first order compressed header;

the transmitter transmits subsequent packets containing the first order compressed header using the stored header of the current packet as a reference header; and

the receiver decompresses the compressed headers of the subsequently transmitted received packets containing the first order compressed header with the stored reference header to produce a full header which is not compressed.

35. (Original) A system in accordance with claim 33 wherein:

the receiver detects at least one lost packet in the subsequently transmitted packets by comparison of the sequence numbers of successively received transmitted packets; and

the header of a packet received immediately after a last in time lost packet is decompressed using a detected number of lost packets.

36. (Original) A system in accordance with claim 34 wherein:

the receiver detects at least one lost packet in the subsequently transmitted packets by comparison of the sequence numbers of successively received transmitted packets; and

the header of a packet by the receiver immediately after a last in time lost packet is decompressed using the stored reference header and using a detected number of lost packets.

37. (Original) A system in accordance with claim 34 wherein:

a number of missing packets is determined by the receiver between an immediately previously received packet and the current packet;

the number of determined missing packets is added by the receiver to a packet number of the immediately received packet to a number of the current packet to update a number of the current packet in a sequence of transmission of the plurality of packets; and

the receiver decompresses a sequence number of the current packet using the updated number and additional fields of information using the stored reference header.

38. (Original) A system in accordance with claim 36 wherein:

a number of missing packets is determined by the receiver between an immediately previously received packet and the current packet;

the number of determined missing packets is added by the receiver to a packet number of the immediately received packet to a number of the current packet

to update a number of the current packet in a sequence of transmission of the plurality of packets; and

the receiver decompresses a sequence number of the current packet using the updated number and additional fields of information using the stored reference header.

39. (Original) In a system having a transmitter transmitting a plurality of packets each containing a header to a receiver, a method of synchronizing the transmission of headers between the transmitter and receiver comprising:

transmitting from the receiver to the transmitter periodic acknowledgments which are individually transmitted to the transmitter with a spacing such that the transmitter receives an acknowledgment at least once every N packets where $N=2^K$ and k is a number of bits used to number the packets in sequence; and

in an absence of the transmitter receiving a properly timed acknowledgment from the receiver, the receiver increases the number of bits defining the sequence number to be l extended bits wherein l extended is larger than k.

40. (Original) A method in accordance with claim 39 wherein:

the receiver can detect a maximum number of lost packets equal $2^{l\ extended}$ bits.

41. (Original) A method in accordance with claim 39 wherein:

the transmitter, in response to a subsequently received acknowledgment, reduces the number of bits in the sequence numbers from l extended bits to k bits.

42. (Original) A method in accordance with claim 40 wherein:

the transmitter, in response to a subsequently received acknowledgment, reduces the number of bits in the sequence numbers from l extended bits to k bits.

43. (Original) In a system having a transmitter which transmits a plurality of packets to a receiver, each of the packets containing a header, a method of maintaining sequence synchronization during transmission of packets having compressed headers between the transmitter and the receiver comprising:

initiating transmission of packets having compressed headers by transmitting from the transmitter to the receiver a packet having a full header;

transmitting from the transmitter to the receiver, subsequent to transmission of the packet having the full header, packets having compressed headers, each compressed header containing information related to the full header of the packet having a full header; and

periodically transmitting from the receiver to the transmitter an acknowledgment packet indicating that the packets having the compressed headers have been received.

44. (Original) A method according to claim 43, wherein the transmitting comprises:

sequentially adding to the compressed header of each of the packets having compressed headers a sequence number which is incremented by one for each sequential packet of the packets having compressed headers, the sequence number has a predetermined number of bits.

45. (Currently Amended) A method according to claim 44, further comprising:

when the ~~receiver~~ transmitter has not received the acknowledgment packet, extending the number of bits of the sequence number beyond the predetermined number of bits.

46. (Original) A method of reducing a number of bits contained in headers of a sequence of transmitted data packets comprising:

transmitting at least one sequence of data packets from a transmitter to a receiver with each sequence containing at least one packet containing a full header followed by at least one packet containing a compressed header having fewer bits than the full header;

in response to one of the data packets received by the receiver containing a full header transmitting from the receiver to the transmitter an acknowledgment that the receiver has received the one data packet containing the full header; and

in response to the receiving of the acknowledgment by the transmitter, transmitting at least one subsequent data packet from the transmitter to the receiver with a header which is further compressed beyond the compression of the at least one header in the at least one sequence.

47. (Original) A method in accordance with claim 46 wherein:

the compressed headers of the at least one sequence are first order compressed headers; and

the compressed header of the at least one subsequent packet is a second order compressed header.

48. (Original) A method in accordance with claim 46 wherein:

a plurality of sequences of packets are transmitted.

49. (Original) A method in accordance with claim 47 wherein:

a plurality of sequences of packets are transmitted.

50. (Original) A method in accordance with claim 46 wherein:

the receiver generates the acknowledgment in response to a first received packet containing a full header.

51. (Original) A method in accordance with claim 47 wherein:

the receiver generates the acknowledgment in response to a first received packet containing a full header.

52. (Original) A method in accordance with claim 48 wherein:

the receiver generates the acknowledgment in response to a first received packet containing a full header.

53. (Original) A method in accordance with claim 49 wherein:

the receiver generates the acknowledgment in response to a first received packet containing a full header.

54. (Original) A method in accordance with claim 46 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

55. (Original) A method in accordance with claim 54 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

56. (Original) A method in accordance with claim 47 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

57. (Original) A method in accordance with claim 56 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

58. (Original) A method in accordance with claim 48 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

59. (Original) A method in accordance with claim 58 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

60. (Original) A method in accordance with claim 49 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

61. (Original) A method in accordance with claim 60 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

62. (Original) A method in accordance with claim 50 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

63. (Original) A method in accordance with claim 62 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

64. (Original) A method in accordance with claim 51 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

65. (Original) A method in accordance with claim 64 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

66. (Original) A method in accordance with claim 52 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

67. (Original) A method in accordance with claim 66 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

68. (Original) A method in accordance with claim 53 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

69. (Currently Amended) A method in accordance with claim ~~69~~68 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

70. (Original) A method of reducing a number of bits contained in headers of a sequence of transmitted packets comprising:

transmitting at least one sequence of packets from a transmitter to a receiver with each sequence containing at least one packet containing a first header followed by at least one packet containing a second header which is compressed by having fewer bits than the first header;

in response to one of the packets received by the receiver containing the first header transmitting from the receiver to the transmitter an acknowledgment that the receiver has received the one packet containing the first header; and

in response to the receiving of the acknowledgment by the transmitter, transmitting at least one subsequent packet from the transmitter to the receiver with a third header which is further compressed beyond the compression of the second compressed header.

71. (Original) A method in accordance with claim 70 wherein:

the second compressed header is a first order compressed header; and

the third header is a second order compressed header.

72. (Original) A method in accordance with claim 70 wherein:

a plurality of sequences of packets are transmitted.

73. (Original) A method in accordance with claim 71 wherein:

a plurality of sequences of packets are transmitted.

74. (Original) A method in accordance with claim 70 wherein:

the receiver generates the acknowledgment in response to a first received packet containing the first header.

75. (Original) A method in accordance with claim 71 wherein:

the receiver generates the acknowledgment in response to a first received packet containing the first header.

76. (Original) A method in accordance with claim 72 wherein:

the receiver generates the acknowledgment in response to a first received packet containing the first header.

77. (Original) A method in accordance with claim 73 wherein:

the receiver generates the acknowledgment in response to a first received packet containing the first header.

78. (Original) A method in accordance with claim 70 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

79. (Original) A method in accordance with claim 78 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

80. (Original) A method in accordance with claim 71 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

81. (Original) A method in accordance with claim 80 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

82. (Original) A method in accordance with claim 72 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

83. (Original) A method in accordance with claim 82 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

84. (Original) A method in accordance with claim 73 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

85. (Original) A method in accordance with claim 84 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

86. (Original) A method in accordance with claim 74 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

87. (Original) A method in accordance with claim 86 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

88. (Original) A method in accordance with claim 75 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

89. (Original) A method in accordance with claim 88 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

90. (Original) A method in accordance with claim 76 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

91. (Original) A method in accordance with claim 90 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

92. (Original) A method in accordance with claim 77 wherein:

the receiver transmits at least one additional acknowledgment to the transmitter in response to reception of the at least one packet containing a compressed header.

93. (Original) A method in accordance with claim 92 wherein:

the at least one additional acknowledgment is generated in response to a first packet in the at least one sequence.

94. (Previously Amended) A method of reducing a number of bits contained in headers of a sequence of transmitted packets comprising:

transmitting at least one sequence of packets from a transmitter to a receiver with each sequence containing at least one packet containing a full header or a first order compressed header followed by at least one packet containing a compressed header having fewer bits than the full header or a first order compressed header; and

in response to one of the packets received by the receiver containing a full header or a first order compressed header transmitting from the receiver to the transmitter an acknowledgment that the receiver has received the one packet containing the full header; and wherein

the compressed header of the subsequently transmitted packets is a second order compressed header.

95. (Original) A method of reducing a number of bits contained in headers of a sequence of transmitted packets comprising:

transmitting at least one sequence of packets from a transmitter to a receiver with each sequence containing at least one packet containing a first header followed by at least one packet containing a second header which is compressed by having fewer bits than the first header; and

in response to one of the packets received by the receiver containing the first header transmitting from the receiver to the transmitter an acknowledgment that the receiver has received the one packet containing the first header.

96 - 186. Cancelled (Without disclaimer or prejudice at the Examiner's request to cancel non-elected claims.)

187. (Original) A method of transmitting headers from a compressor to a decompressor comprising:

transmitting at least one packet from a compressor to a decompressor;

in response to receiving the at least one packet at the decompressor transmitting at least one feedback to the compressor signalling that the decompressor has received the at least one packet; and

in response to the feedback, the compressor transmits at least one additional packet to the decompressor which has a smaller number of bits in a header of the at least one additional packet than a number of bits of a header in the at least one packet.

188. (Original) A method in accordance with claim 187 wherein:

each header of the at least one packet is a full header; and

each header of the at least one additional packet is a first order header.

189. (Original) A method in accordance with claim 187 wherein:

each header of the at least one packet is a first order header; and

each header of the at least one additional packet is a second order header.

190. (Original) A method in accordance with claim 187 wherein:

the feedback is an acknowledgment packet.

191. (Currently Amended) A method of transmitting headers from a compressor to a decompressor comprising:

transmitting a plurality of packets from a compressor to a decompressor;

in response to receiving ~~the~~ at least one packet at the decompressor, transmitting at least one feedback to the compressor signalling that the decompressor has received at least one of the plurality of packets; and

transmitting at least one additional packet from the compressor to the decompressor which has a smaller number of bits in a header of the at least one additional packet than a number of bits of a header in the at least one packet when whichever first occurs of

(1) a transmission of a predetermined number of packets of the at least one packet, or

(2) reception of the at least one feedback.

192. (Original) A method in accordance with claim 191 wherein:

each header of the at least one packet is a full header; and

each header of the at least one additional packet is a first order header.

193. (Original) A method in accordance with claim 191 wherein:

each header of the at least one packet is a first order header; and

each header of the at least one additional packet is a second order header.

194. (Original) A method in accordance with claim 191 wherein:

the feedback is an acknowledgment packet.

195. (Currently Amended) A method of transmitting headers from a compressor to a decompressor comprising:

transmitting a plurality of packets from a compressor to a decompressor; and

transmitting at least one additional packet from the compressor to the decompressor which has a smaller number of bits in a header of the at least one additional packet than a number of bits of a header in the ~~at least one~~ plurality of packets when a transmission of a predetermined number of packets of the ~~at least one~~ plurality of packets has occurred.

196. (Original) A method in accordance with claim 195 wherein:

the predetermined number of packets is based upon a selection criteria.

197. (Original) A method in accordance with claim 196 wherein:

the selection criteria are based upon channel conditions involving transmissions to the decompressor from the compressor or transmissions from the decompressor to compressor.

198. (Original) A method in accordance with claim 191 wherein:

the predetermined number of packets is based upon a selection criteria.

199. (Original) A method in accordance with claim 198 wherein:

the selection criteria are based upon channel conditions involving transmissions to the decompressor from the compressor or transmissions from the decompressor to compressor.

200. (Original) In a system having a transmitter which transmits a plurality of packets to a receiver, each of the packets containing a header, a method of maintaining sequence synchronization during transmission of packets having compressed headers between the transmitter and the receiver comprising:

initiating transmission of packets having headers by transmitting from the transmitter to the receiver a packet having a header;

transmitting from the transmitter to the receiver, subsequent to transmission of the packet having the header, packets having compressed headers, each compressed header containing information related to the header of the packet; and

nonperiodically transmitting from the receiver to the transmitter an acknowledgment packet indicating that the packets having the compressed headers have been received.